



ELSEVIER

***applied
acoustics***

Applied Acoustics 64 (2003) III-IX

www.elsevier.com/locate/apacoust

Contents of Volume 64

Number 1

- 1 An improved model to predict energy-based acoustic parameters in Apulian-Romanesque churches
E. CIRILLO & F. MARTELLOTTA (Italy)
- 25 Second generation wavelet transform-based pitch period estimation and voiced/unvoiced decision for speech signals
E. ERÇELEBI (Turkey)
- 43 Sampling techniques for the estimation of the annual equivalent noise level under urban traffic conditions
E. GAJA, A. GIMENEZ, S. SANCHO & A. REIG (Spain)
- 55 Application of the modified infinite element method to two-dimensional transient acoustic radiation
L.-X. LI (China), J.-S. SUN & H. SAKAMOTO (Japan)
- 71 Vibration in dwellings from road and rail traffic — Part I: a new Norwegian measurement standard and classification system
I.H. TURUNEN-RISE, A. BREKKE, L. HÅRVIK, C. MADSHUS & R. KLÆBOE (Norway)
- 89 Vibration in dwellings from road and rail traffic — Part II: exposure—effect relationships based on ordinal logit and logistic regression models
R. KLÆBOE, I.H. TURUNEN-RISE, L. HÅRVIK & C. MADSHUS (Norway)
- 111 Vibration in dwellings from road and rail traffic — Part III: towards a common methodology for socio-vibrational surveys
R. KLÆBOE (Norway), E. ÖHRSTRÖM (Sweden), I.H. TURUNEN-RISE (Norway), H. BENDTSEN (Denmark) & H. NYKÄNEN (Finland)

Number 2

- 121 Noise exposure of spectators at Finnish air shows
R. PÄÄKKÖNEN, J. JOKITULPPO, V.-M. HEINIJOKI & P. KURONEN (Finland)
- 129 A new approach to assessing the performance of noise indices in buildings
U. AYR, E. CIRILLO, I. FATO & F. MARTELLOTTA (Italy)
- 147 The evaluation of binaural playback systems for virtual sound fields
N. PRODI (Italy) & S. VELECKA (Slovakia)

163 Active control of double-glazed windows. Part I: Feedforward control
A. JAKOB & M. MÖSER (Germany)

183 Active control of double-glazed windows. Part II: Feedback control
A. JAKOB & M. MÖSER (Germany)

197 The sound speed and attenuation in loose and consolidated granular formulations of high alumina cements
K.V. HOROSHENKOV, D.C. HUGHES (UK) & A. CWIRZEN (Finland)

213 A model for vibration transmission of light-heavy structures
X.M. ZHANG, M. FATEMI, R.R. KINNICK & J.F. GREENLEAF (USA)

229 Neural networks for prediction of acoustical properties of polyurethane foams
G.C. GARDNER, M.E. OLEARY, S. HANSEN & J.Q. SUN (USA)

Number 3

243 Energetic analysis of an actively controlled one-dimensional acoustic waveguide
L.V. DONADON & J.R.F. ARRUDA (Brazil)

269 Design of a pulse generator and shock tube for measuring hearing protector attenuation of high-amplitude impulsive noise
R.S. BIRCH (UK), S.N. GERGES & E.F. VERGARA (Brazil)

287 Assessing the effect of a barrier between two rooms subjected to low frequency sound using the boundary element method
A. TADEU & P. SANTOS (Portugal)

311 Experimental verification of the optimal tuning of a tunable vibration neutralizer for global vibration control
J. DAYOU (Malaysia) & M.J. BRENNAN (UK)

325 Non-resonant sound transmission through double walls using statistical energy analysis
R.J.M. CRAIK (UK)

Technical note

343 Noise effects of reducing traffic flow through a Spanish city
J. RAMIS, J. ALBA, D. GARCÍA & F. HERNÁNDEZ (Spain)

Number 4

365 Effect of acoustical damping with a porous absorptive layer in the cavity to reduce the structure-borne sound radiation from a double-leaf structure
M. YAIRI, K. SAKAGAMI, M. MORIMOTO, A. MINEMURA & K. ANDOW (Japan)

385 Modelling of impervious layers from measurements of the sound reduction index
J. ALBA & J. RAMIS (Spain)

401 Simulation of a morning air temperature inversion break-up in complex terrain and the influence on sound propagation on a local scale
L.R. HOLE & G. HAUGE (Norway)

415 A new empirical model for the acoustic properties of loose granular media
N.N. VORONINA (Russia) & K.V. HOROSHENKOV (UK)

433 On the accuracy of the ray-tracing algorithms based on various sound receiver models
Z. XIANGYANG, C. KEAN & S. JINCAI (PR China)

443 Psychological impression and listening score while listening to audio signal under
meaningless steady noise
T. TAMESUE, S. YAMAGUCHI, T. SAEKI & Y. KATO (Japan)

459 A fast automatic calibration system for a sound level meter in an anechoic room
Y.T. KIM, Y.B. LEE & M.J. JHO (South Korea)

Number 5

471 Improved analysis of the electrically manifested distortions of condenser microphones
M.T. ABUELMA'ATTI (Saudi Arabia)

481 Traffic noise reduction due to the porous road surface
R. GOLEBIIEWSKI, R. MAKAREWICZ, M. NOWAK & A. PREIS (Poland)

495 Parametric study on sound radiation from an infinite fluid-filled/semi-submerged
cylindrical shell
H.L. LI, C.J. WU & X.Q. HUANG (People's Republic of China)

511 Stiff light composite panels for duct noise reduction
W.C. TANG & W.Z. LIN (China)

Technical note

525 Analysis of sound absorption by periodic structures using a hybrid-boundary element/
mode expansion method
T. FUJIMOTO & K. FUJIWARA (Japan)

Correspondence

533 Comments on "An experimental investigation of the directional distribution of incident
energy for the prediction of sound transmission" (*Applied Acoustics* 63 (3), 283–294).
F. FAHY (UK)

535 Reply to comments on "An experimental investigation of the directional distribution of
incident energy for the prediction of sound transmission" (*Applied Acoustics* 63 (3),
283–294)
H.-J. KANG (South Korea)

539 Comments on reply to comments on H. J. Kang et al. "An experimental investigation on
the directional distribution of incident energy for the prediction of transmission loss"
(*Applied Acoustics* 63 (3), 283–294)
F. FAHY (UK)

I Calendar

Number 6

541 On the addition of two incoherent unsteady noise records of similar statistical
structures. Part 2: effects of long time span and diurnal variations
S.K. TANG (China)

565 Combustion oscillations in gas fired appliances: Eigen-frequencies and stability regimes
M. ELSARI & A. CUMMINGS (UK)

581 Effects of hearing protector devices on speech intelligibility
J. CANDIDO FERNANDES (Brazil)

591 An active noise reduction earplug using a piezoelectric laterally radiating loudspeaker
R. BAUER, P. LOTTON, P. HAMERY & A.-M. BRUNEAU (France)

611 Study on sound transmission characteristics of a cylindrical shell using analytical and experimental models
J.-H. LEE & J. KIM (USA)

I Calendar

Number 7

633 A simple formula for evaluating the acoustic effect of balconies in protecting dwellings against road traffic noise
K.M. LI, W.K. LUI, K.K. LAU & K.S. CHAN (Hong Kong)

655 A hybrid model for the acoustic response of a two-dimensional rough surface to an impulse incident from a refracting medium
J.C. NOVARINI, R.S. KEIFFER & G.V. NORTON (USA)

669 A piezoelectric array for sensing radiation modes
QIBO MAO, BOLING XU, ZHE JIANG & JIAN GU (People's Republic of China)

681 The scaling of acoustic streaming for application in micro-fluidic devices
K.D. FRAMPTON, S.E. MARTIN & K. MINOR (USA)

693 Combined effects of admittance optimisation on both barrier and ground
P.J. THORSSON (Sweden)

713 An image model for predicting the field performance of acoustic louvres from impulse measurements
E.B. VIVEIROS (Brazil) & B.M. GIBBS (UK)

731 Three methods for analyzing forced vibration of a fluid-filled cylindrical shell
M.B. XU (USA)

753 Vibration of moderately thick square orthotropic stepped thickness plates
P.V. HULL & G.R. BUCHANAN (USA)

I Calendar

Number 8

765 Integration of the efficiency of noise barrier caps in a 3D ray tracing method. Case of a T-shaped diffracting device
J. DEFRENCE & P. JEAN (France)

781 A BEM approach to validate a model for predicting sound propagation over non-flat terrain
S. QUIRÓS Y ALPERA (Spain), F. JACOBSEN, P. MØLLER JUHL (Denmark) & V. CUTANDA HENRÍQUEZ (Mexico)

793 Prediction of the sound reduction index: a modal approach
T. BUZZI, C. COURNÉ, A. MOULINIER & A. TISSEYRE (France)

815 Road traffic noise levels, restrictions and annoyance in Greater Cairo, Egypt
S.A. ALI & A. TAMURA (Japan)

825 Comments on 'Absorbing surfaces in ray-tracing programs for coupled spaces'
J.E. SUMMERS (USA)

833 Reply to comments on "Absorbing surfaces in ray-tracing programs for coupled spaces"
L. NIJS (The Netherlands), G. JANSENS, G. VERMEIR (Belgium)

I Calendar

Number 9

845 The average absorption coefficient for enclosed spaces with non uniformly distributed absorption
J. DUCOURNEAU (France) & V. PLANEAU (France)

863 Acoustical design of stages with large plane surfaces in rectangular recital halls
W. CHIANG & Y.-K. SHU (Taiwan, ROC)

885 Hybrid active and passive control of fan noise
Y.-J. WONG, R. PAUROBALLY & J. PAN (Australia)

903 Comparison and implementation of the various numerical methods used for calculating transmission loss in silencer systems
S. BILAWCHUK & K.R. FYFE (Canada)

917 A preliminary study of an isodynamic transducer for use in active acoustic materials
H. LISSEK & X. MEYNIAL (France)

Technical note

931 Approximation errors for the measurement of coupling loss factors using the ELD method
R.S. MING & J. PAN (Australia)

I Calendar

Number 10

941 Predicting noise from aircraft operated on the ground
O. ZAPOROZHETS, V. TOKAREV (Ukraine) & K. ATTENBOROUGH (UK)

955 Vibration transmission between coupled plates using finite element methods and statistical energy analysis.
Part 1: Comparison of measured and predicted data for masonry walls with and without apertures
C. HOPKINS (UK)

975 Vibration transmission between coupled plates using finite element methods and statistical energy analysis.
Part 2: The effect of window apertures in masonry flanking walls
C. HOPKINS (UK)

999 Effect of inlet duct contour and lack thereof on the noise generated of an axial flow fan
A. MAALOUM, S. KOUIDRI, F. BAKIR & R. REY (France)

Technical note

1011 Insertion loss testing of active noise reduction headsets using acoustic fixture
J. CUI, A. BEHAR, W. WONG & H. KUNOV (Canada)

I Calendar

Number 11

1033 Ray-tracing evaluation of empirical models for predicting noise in industrial workshops
M. HODGSON (Canada)

1049 Acoustic-structural interaction analysis using the component mode synthesis method
M.D.C. MAGALHAES & N.S. FERGUSON (UK)

1069 Development of an optimised, standard-compliant procedure to calculate sound transmission loss: numerical measurements
C.I. PAPADOPOULOS (Greece)

1087 On locating low altitude moving targets using a planar acoustic sensor array
H. CHEN & J. ZHAO (China)

Technical notes

1103 The new EC Noise Directive to protect employees at the workplace
H. LAZARUS (Germany)

1113 Piano soundboard: structural behavior, numerical and experimental study in the modal range
J. BERTHAUT, M.N. ICHCHOU & L. JÉZÉQUEL (France)

I Calendar

Number 12

1137 Acknowledgement of Referees

1141 Subjective and objective verifications of the inverse functions of binaural room impulse responses
J.H. WANG & C.S. PAI (Taiwan)

1159 A novel algorithm for underwater moving-target dynamic line enhancement
Y. GUO, J. ZHAO & H. CHEN (People's Republic of China)

1171 A novel approach to the acoustic characterisation of porous road surfaces
P.A. MORGAN & G.R. WATTS (UK)

1187 Scattering of plane acoustic waves by a transversely isotropic cylindrical shell—application to material characterization
J.-Y. KIM & J.-G. IH (South Korea)

1205 The influence of the visibility of the source on the subjective annoyance due to its noise
Z. BANGJUN, S. LILI & D. GUOQING (PR China)

1217 Vibration damage detection of a Timoshenko beam by spatial wavelet based approach
C.-C. CHANG & L.-W. CHEN (Taiwan)

1241 Ambient sound assessment of urban environments: field studies in two French cities
M. RAIMBAULT, C. LAVANDIER & M. BÉRENGIER (France)

I Calendar

III Contents of Volume 64